

REMARKS

Claims 5, 10, and 31 currently appear in this application. The Office Action of June 14, 2001, has been carefully studied. It is believed that all of the claims are allowable, and favorable action is earnestly requested.

Nevertheless, in deference to the Examiner's views and to avoid or minimize needless argument, a cosmetic amendment has been made to claim 5. This amendment is by of a formal nature only, i.e., made to place the claims into better form consistent with U.S. practice. The amendment is not a "narrowing" amendment and is not made for any "substantial reason related to patentability." The scope of the claims has not been changed; no limitations have been added and none is intended.

Claim Objections

Claim 5 is objected to because the term "and" after "which" in line 8 should be deleted.

Accordingly, claim 5 has been amended to delete the superfluous "and."

Rejections under 35 U.S.C. 112

Clam 5 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner alleges that an inhibitory

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agent comprising only trehalose and cyclodextrin is new, and a method of adding such an inhibitory agent to a fresh plant or edible part thereof is said to be new.

This rejection is respectfully traversed. First of all, it is immaterial whether the original claims included only trehalose and cyclodextrin, because new matter is something which was not disclosed in the application as filed, not just in the original claims. Attention is directed to the specification as filed, page 10, first and second full paragraphs. In the specification as filed, it is described that" the present composition, containing trehalose can be further mixed with one or more appropriate substances in the form of a solid or liquid such as essential minerals, edible fibers, the edible fibers satisfactorily usable in the present invention are, for example, cyclodextrin and pullulan. [emphasis added].

As the Examiner is well aware, there need not be a specific example of the claimed invention in the specification as filed, but only whether the disclosure as filed "reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter." *Ralston Purina C. v. Far-Mar. Co., Inc.* 227 USPQ 177, 179 (Fed. Cir. 1985). The subject matter of the claims need not be described literally, as noted in MPEP Section 2163.02. In the present case, the specification clearly stated that trehalose can be mixed with one or more appropriate substances. That is, it is

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clear that the specification as filed disclosed that trehalose could be mixed with one appropriate substance, and cyclodextrin is one of these appropriate substances. One skilled in the art, without undue experimentation, could readily see that trehalose could be mixed with at least one, or any one, of the appropriate substances mentioned on page 10, one of which is cyclodextrin.

Claims 5, 10, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner alleges that the phrase "for said inhibition" renders claim 5 indefinite. Additionally, the Examiner alleges that the inhibitory agent contain 20 w/w% trehalose on a dry solid basis, but that it is unclear to what the 20% is relative.

This rejection is respectfully traversed. Claim 5 has been amended to delete "for said inhibition." Additionally, claim 5 has been amended to recite that the 20 w/w% trehalose is relative to the inhibitory agent. Support for this recitation can be found in the specification as filed at page 5, lines 5-13.

Art Rejections

Claims 5, 10 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruta et al. as supported by Cardona. The Examiner alleges that Maruta et al. are not clear whether the composition of trehalose and pullulan can be

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homogeneously mixed with plant materials, so that the Examiner assumes that these plant materials are fresh.

This rejection is respectfully traversed. In Example B-9 of Maruta et al., the beans are azuki beans which are mixed with water and boiled, followed by removing the astringency, harshness of the beans, and water-soluble impurities to obtain azuki-tsubu-an (azuki bean paste) before the addition of trehalose. Thus, the beans to which the trehalose is added have been cooked before the trehalose is added. These are certainly not fresh beans.

With respect to "fresh radish pickles", it is respectfully submitted that pickles are not the same as fresh vegetables, but are vegetables that have been preserved by pickling, i.e., by being mixed with an acid such as vinegar and spices. Maruta et al. add trehalose to radish pickles as a sweetening agent. Since pickles are already preserved vegetables, there is no motivation to add a preserving agent to pickles.

Cardona adds nothing to Maruta et al., as Cardona discloses a medicinal antioxidant in a carrier material comprising a combination of selenomethionine with compounds of self-regenerating physiological redox systems. The antioxidants disclosed by Cardona include selenomethionine, DL-alpha tocopherol acetate, ascorbic acid, beta-carotene, thiamine HCl, riboflavin, pyridoxine HCl, nicotinamide,

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glutathione, and L-cysteine. There is nothing in Cardona disclosing or suggesting a combination of trehalose and cyclodextrin.

Claims 5, 10 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruta et al. as supported by Cardona in view of Mandai et al. The Examiner alleges that Maruta et al. and Cardona make obvious a method of inhibiting the decrease of naturally-occurring active-oxygen-eliminating activity by adding a composition comprising trehalose to a plant or edible part thereof. Mandai is said to teach a method for stabilizing food products, pharmaceuticals etc. during desiccation by adding a composition comprising trehalose. Mandai is said to add trehalose to hydrous food products, including fresh fruit and juice. Mandai is said to teach that pullulan or cyclodextrin can be added.

This rejection is respectfully traversed. As noted above, Maruta et al. have nothing to do with inhibiting the decrease of active-oxygen-eliminating activity of as fresh plant material. Maruta et al. never teach or suggest the use of trehalose for this purpose, but only for sweetening. Cardona adds nothing to Maruta et al., as there is no mention in Cardona of the combination of trehalose and cyclodextrin.

There is nothing in Mandai et al. that adds to these disclosures to lead to the present invention. Mandai et al. merely disclose a method for drying substances comprising

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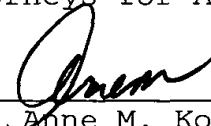
using anhydrous trehalose. In order to dry the substances, anhydrous trehalose must be used. In the present invention, however, there is no requirement for anhydrous trehalose—either anhydrous or hydrous trehalose can be used—as the present invention has nothing at all to do with drying, but instead is concerned with preservation.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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5. (Seventh Amendment) A method for inhibiting the decrease of naturally occurring active-oxygen-eliminating activity in a fresh plant when the fresh plant is sliced or disrupted, or when an edible part of the fresh plant is disrupted, which comprises a step of

incorporating homogeneously, in an aqueous system, an inhibitory agent into said fresh plant or an edible part of said fresh plant which ~~and~~ has an active-oxygen-eliminating activity, said inhibitory agent comprising an amount effective of trehalose, and optionally at least one member selected from the group consisting of pullulan and cyclodextrin, ~~for said inhibition,~~ and said inhibitory agent ~~contains~~ containing at least about 20 w/w% trehalose to said inhibitory agent on a dry solid basis.